DEPARTMENT OF TRADE AND COMMERCE

Supply of Building Materials in Canada

OUTLOOK 1953

Presented to Parliament by
The Right Honourable C. D. Howe, M.P.
Minister of Trade and Commerce

CANADA

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INTRODUCTION

This report, the seventh in an annual series, appraises the outlook for the supply of building materials during 1953 in relation to the probable trend in the general level of requirements. The report is based primarily on a survey made late in 1952 of what the manufacturers of 30 selected materials widely used in construction expected they would produce in 1953. Use has also been made of information on anticipated capital expenditures contained in a companion study released concurrently entitled "Private and Public Investment in Canada—Outlook 1953".

The close of 1952 marks the end of a two-year period during which the Federal Government implemented measures aimed at keeping the total volume of construction undertaken within practicable limits. Conditions arising from the outbreak of hostilities in Korea had stimulated construction to such a degree that special measures were taken to ensure availability of supplies for the most necessary projects and to reduce the upward pressure on prices resulting from scarcities. Direct controls over the use of steel materials for less immediately essential types of construction were introduced, and fiscal measures designed to discourage such construction were enacted. These measures had the effect of inducing investors to postpone many construction projects in the fields of light manufacturing, trade, finance and commercial services. Moreover, a number of factors led to a decline in housebuilding from the peak year of 1950. Even with the pressure relieved to this extent, however, the volume of construction achieved rose to new peaks both in 1951 and in 1952. And, while practically all the construction undertaken was carried through, the supplies of a number of key materials, especially steel and cement, were pressed to the limit over most of the two-year period.

On the basis of the surveys made, it appears that the supplies of building materials in 1953 will be sufficient to permit completion of all the construction known to be planned for the year. With legislation aimed at discouraging less essential types of construction now removed, a new peak in the volume of building is expected, however, and temporary bottlenecks in the flow of materials to the construction sites are bound to occur. Much of the increase in construction will be in housing and in types of projects which had to be postponed over the last two years. This will result in a return to a more normal balance in the composition of the construction program and will enable more efficient use to be made of the productive resources of the building materials industries.

This report was prepared in the Economics Division of the Department of Trade and Commerce. The survey of producers' intentions was made by the Dominion Bureau of Statistics.

M. W. SHARP,
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FEBRUARY, 1953.

Section I

THE SUPPLY POSITION OF BUILDING MATERIALS IN 1952 AND OUTLOOK, 1953

The 1952 Position

The supply of building materials in relation to requirements was better in 1952 than in any previous post-war year, and such shortages as did exist did not affect to any great extent the overall volume of construction achieved. Even so, with construction at an all time high, a few strategic materials remained very scarce and a number of small projects for which supplies had not been obtained in advance were delayed. At the same time the decline of house building activity during the first six months of the year brought on a sharp drop in demand for a wide range of materials, forcing manufacturers to cut back production.

Of the materials which were in short supply, cement caused particular concern during the late summer and autumn; it was difficult to obtain on short notice in most sections of the country and scarcities were especially prevalent on the Prairies and in Central Canada. Heavy structural steel beams were short throughout the year, but there was sufficient improvement in the availability of light and medium structurals to permit a progressively more liberal policy of allocation to restricted uses by the government. Shortages of heavy steel pipe caused some delays, especially on construction projects in the chemicals and petroleum industries. Deliveries on a few other materials, most notably gypsum products, became considerably extended in the second half of the year following a sharp upswing in house building superimposed upon an already large construction program.

Despite these shortages, 1952 saw a fairly general movement of building materials into good supply. In fact, for the first time since the war, the production of a large number of building materials was cut back early in the year due to reduced demand and to temporarily inflated inventories. Thus, of the materials covered in this Report, the production of 20 declined while the production of only 12 increased. Moreover, some of the shortages which appeared following the upswing in house building were due more to the fact that stocks had been unduly depleted by mid-year than to insufficiency of productive capacity.

Outlook, 1953

The outlook for the supply of building materials in 1953 is distinctly favourable. While the volume of construction is expected to be even larger than in 1952, its composition will be more balanced from the standpoint of the Canadian building materials industries. A large part of the expected increase will be in house building and in trade, finance and commercial construction; this will raise the demand for most of the building materials whose production had to be cut back in 1952. Activity in these sectors together with the heavy programs of utilities construction and road building will keep the demand for cement very high; however, a sizeable increase in cement production is planned, and there will probably be some improvement in the availability of this material. Increased supplies of heavy structural steel beams are expected to become available from the United States, and all sizes of structurals are expected to be in adequate supply after the middle of the year. Supplies of some of the heavier types of steel pipe will probably continue to lag a little behind demand. Deliveries on gypsum products are expected to become extended during the height of the construction season. Sufficient capacity exists for the production of most other

materials not normally imported, and their free availability during the height of the construction season will depend in large measure upon the willingness and ability of the manufacturers, suppliers and builders to stock sufficient reserves and to buy well in advance of requirements.

The results of the survey of producers' intentions for 1953 are presented in Table 1 on page 19 of this Report. In the survey, producers were asked to state in percentage terms how they anticipated their 1953 level of production would compare with that of the previous year. With a few exceptions, principally cement and steel pipe, it is clear that the producers based their replies upon their assessment of probable demand in 1953 rather than upon their capacity to produce. As Table 1 indicates, the producers of practically all the building materials covered in the survey are preparing for a greater volume of business in 1953 than they had in 1952.

Section II

THE SUPPLY OF BUILDING MATERIALS 1946-1952

At the beginning of the reconstruction period following the end of the war a basic disequilibrium existed between the supplies of building materials and the requirements of the construction industry. The depressed conditions of the early 1930's had prevented the expansion of the building materials industries which would normally have been expected to occur with the growth of population. There had been some recovery during the late 1930's and construction activity in the early war years had been intense. However, after Canada's war production effort had gotten under way the rate of construction declined again and the building materials industries were no longer in a position to expand productive facilities and to add to their skilled labour force. As a result, these industries entered the post-war period in an underdeveloped state to meet the needs of a larger and more highly industrialized nation, and the abnormal demands of rapid reconstruction made the situation critical. Nonetheless, while the output of building materials lagged behind demand for several years, there was steady expansion of productive facilities.

As a result of greatly increased domestic production and increased imports, the building materials supply situation was showing definite improvement by 1948. During that year roofing materials, electric water heaters, paints, varnishes and lacquers, electrical wire and wiring devices came into fairly good supply. By the middle of 1949 plumbing supplies, sanitary ware and heating equipment made from domestic pig iron and scrap were readily available. Later that year and during the first half of 1950 the supplies of most steel items were also sufficient to meet the requirements of the nation's construction program. After the middle of 1950, however, the defence preparedness program following the outbreak of hostilities in Korea led to a new series of building materials shortages. There was a sharp rise in defence construction and in the construction of facilities for the production of defence goods, combined with the rapid development of Canada's natural resources. This placed very heavy strains upon the supplies of cement and steel through 1951 and 1952, but the enlarged productive facilities of most of the other building materials industries proved adequate to meet the new demands.

The following table traces the parallel growth of the Canadian building materials and construction industries since 1946:

Year	Building Materials Industry		Construction Industry	
	Number Employed (1)	Capital Expenditures	Number Employed	Capital Expenditures
	thousands	($ millions)	thousands	($ millions)
1946	84	16	227	21
1947	98	28	252	32
1948	105	37	289	59
1949	109	38	323	42
1950	114	41	338	71
1951	122	47	352	66
1952(2)	115	51	344	71
1953	(4)	37(3)	(4)	48(3)

(1) Employment reported by firms with 15 or more employees.
(2) Preliminary.
(3) Investors' intentions.
(4) Not available.

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The extent to which production of the different building materials has increased varies considerably but the following table shows production of a few selected materials since 1946:

Materials	Units	1946	1947	1948	1949	1950	1951	1952(1)	1953(2)
Structural Steel and Piling	M. tons	115·6	161·2	172·8	180·3	158·0	215·2	180·6	(3)
Lumber	Mil. bd. ft	5,083	5,878	5,909	5,915	6,554	6,535	6,350	6,477
Cement	Mil. barrels	10·7	12·2	14·0	16·1	16·7	17·1	18·4	22·4
Building Brick	Mil. bricks	316·7	332·9	361·6	384·0	420·5	425·2	392·6	418·0
Mineral Wool Batts	Mil. sq. ft	54·8	82·3	93·4	137·8	150·6	149·7	158·4	169·2
Gypsum Wallboard	Mil. sq. ft	203·4	213·7	237·7	230·6	230·7	232·3	233·9	245·8

(1) Preliminary.
(2) Producers' intentions.
(3) Not available.

Table 2 on page 20 shows annual production of a more comprehensive list of building materials since 1946.

Canada relies largely upon domestic production for her supplies of building materials but the bulk of her imports in this field are made up of a relatively small number of items which constitute essential supplements to domestic supplies. Thus, Canada imports most of her heavy structural steel, and a substantial though decreasing part of her supplies of common window glass. In addition, imports have from time to time contributed to the alleviation of serious shortages of cement, building brick, gypsum lath, wire nails and other products. The following table shows the dollar values of imports of selected building materials since 1946:

Material	1946	1947	1948	1949	1950	1951	1952(1)
	(imports in thousands of dollars)						
Wire Nails and Spikes	107·4	732·7	1,315·7	2,083·8	517·3	1,770·6	635·0
Structural Steel and Piling	5,664·7	13,025·5	15,694·9	16,405·0	14,791·8	33,423·1	31,029·0
Cement	1,098·5	3,843·6	3,995·2	6,877·9	3,789·0	7,447·9	9,655·0
Building Brick	57·4	348·8	366·5	914·3	773·6	981·9	828·0
Common Window Glass	2,671·8	4,716·4	6,488·4	4,397·6	4,461·4	4,586·4	2,313·0
Paints, Varnishes and Lacquers	1,588·4	2,303·7	921·0	1,491·6	1,873·6	2,333·1	2,108·0

(1) Preliminary.

Section III

CURRENT SUPPLY AND OUTLOOK FOR BUILDING MATERIALS

Iron and Steel Products

(1) *Structural Steel*

The supply of structural steel continued to fall below the requirements of the Canadian construction industry during 1952. Serious shortages, however, were largely confined to the heavier beams and, while a number of projects calling for these sizes were delayed, the overall volume of construction was not significantly reduced thereby. Structural steel use remained under government control throughout 1952, but as the year progressed it became possible to allocate more steel for restricted uses than during 1951. Controls over the end use of structurals in Canada were abolished on January 1, 1953, although the Government retained the power of directing steel to essential projects if necessary.

The total domestic supply of structural steel was about 10 per cent below that of 1951. Canadian production was down about 15 per cent due partly to concentration on the production of other forms of steel and partly to dislocation caused by the steel expansion program which was underway. Imports, which account for more than half our supplies and upon which we are entirely dependent for heavy structurals, dropped about 7 per cent from the record level of 1951 due to the steel strike in the United States.

The following table shows domestic production, imports less exports and domestic supply of structural steel and piling since 1946:

—	1946	1947	1948	1949	1950	1951	1952[1]
	(thousands of tons)						
Domestic Production	115·6	161·2	172·8	180·3	158·0	215·2	180·6
Imports Less Exports	86·9	162·5	151·5	168·4	163·3	292·0	275·0
Domestic Supply	202·5	323·7	324·3	348·7	321·3	507·2	455·6

[1] Preliminary.

The supply of structural steel is expected to catch up with demand during 1953 although requirements will continue to be high. Increased tonnages will become available from the United States after the first quarter of the year, and no shortages are anticipated after the middle of the year.

(2) *Concrete Reinforcing Bars*

Concrete reinforcing bars were in good supply throughout 1952. Domestic output rose 7 per cent and it proved possible to meet all requirements. In 1953, while the demand is likely to remain high, an adequate supply will be available for all types of construction.

(3) *Wire Nails and Spikes*

Wire nails and spikes were in good supply during 1952, both domestic production and imports being down from the previous year. The following table shows domestic supply of wire nails and spikes since 1946:

Year	Domestic Production	Imports	Exports	Domestic Supply
	(thousands of tons)			
1946	58·9	0·7	1·3	58·3
1947	77·4	4·1	—	81·5
1948	86·8	6·3	1·9	91·2
1949	88·5	13·3	0·5	101·3
1950	86·2	3·5	—	89·7
1951	91·0	10·1	—	100·8
1952(1)	81·7	5·9	—	87·6
1953	83·1(2)	(3)	(3)	(3)

(1) Preliminary.
(2) Producers' intentions.
(3) Not available.

Producers intend to raise their output moderately in 1953 to meet an anticipated rise in demand, and no shortages are expected.

(4) *Steel Pipe and Fittings*

The supplies of most sizes of steel pipe and fittings were adequate in 1952 although output was down about 16 per cent due mainly to difficulties in obtaining sufficient skelp at reasonable prices. Heavy skelp was short with the result that deliveries on the larger sizes of pipe were slow, and the progress of some construction projects in the oil and chemical industries was retarded.

The following table shows production and stocks of steel pipe and fittings since 1946:

Year	Production	Stocks at Dec. 31
	(thousands of tons)	
1946	115·7	17·2
1947	118·0	6·7
1948	132·0	8·9
1949	185·0	17·6
1950	164·3	29·5
1951	186·9	18·5
1952(1)	156·9	7·5
1953	156·9(2)	(3)

(1) Preliminary.
(2) Producers' intentions.
(3) Not available.

In 1953, manufacturers expect to produce about the same tonnage of steel pipe and fittings as in 1952. The smaller sizes should continue in adequate supply but deliveries on the larger sizes will probably be a little slow.

(5) *Cast Iron Pipe and Fittings*

Cast iron soil pipe and pressure pipe and fittings were in surplus supply during 1952 and the industry operated at considerably less than full capacity. The following table outlines production and stocks of these items since 1946:

Year	Cast Iron Soil Pipe		Cast Iron Pressure Pipe	
	Production	Stocks at Dec. 31	Production	Stocks at Dec. 31
	(thousands of tons)			
1946	24·5	1·3	65·2	(3)
1947	32·5	1·6	77·7	2·3
1948	45·7	2·9	93·0	4·7
1949	44·3	4·9	91·5	8·3
1950	54·0	4·6	80·8	6·7
1951	53·0	4·8	115·1	9·2
1952(1)	43·4	4·2	85·3	13·5
1953	48·1(2)	(3)	101·9(2)	(3)

(1) Preliminary.
(2) Producers' intentions.
(3) Not available.

Production imports and exports of all types of cast iron pipes and fittings including soil pipe and pressure pipe since 1946 are shown in the following table:

Year	Production	Imports	Exports
	(thousands of tons)		
1946	99·0	0·2	0·2
1947	124·0	3·6	0·2
1948	152·0	5·3	0·7
1949	146·0	4·7	1·0
1950	155·0	13·2	1·4
1951	194·0	20·1	0·9
1952(1)	147·0	16·0	1·2

(1) Preliminary.

According to the survey of producers' intentions, manufacturers expect to increase their output of cast iron soil pipe and pressure pipe and fittings by about 15 per cent in 1953. These anticipations are based upon producers' appraisal of probable demand, and output could be increased further if required.

Lumber

Output of sawn lumber in 1952 was down slightly from the high level of 1951 and inventories remained fairly high by post-war standards. Figures showing the supply and apparent domestic consumption of sawn lumber in recent years are given in the following table:

Year	Production	Imports	Exports	Domestic Supply	Stocks at Dec. 31	Domestic Disappearance
	(millions of board feet)					
1946	5,083·3	59·1	2,083·3	3,059·1	475·0	3,054·1
1947	5,877·9	114·9	2,735·0	3,257·8	502·6	3,230·2
1948	5,908·8	42·9	2,467·7	3,484·0	692·6	3,294·0
1949	5,915·4	80·6	2,189·5	3,806·5	744·4	3,754·7
1950	6,553·9	86·2	3,578·7	3,061·4	723·1	3,082·7
1951	6,535·2	132·5	3,439·4	3,228·5	816·2	3,135·2
1952(1)	6,349·7	150·0	3,339·6	3,160·1	823·3	3,153·0
1953	6,477·0(2)	(3)	(3)	(3)	(3)	(3)

(1) Preliminary.
(2) Producers' intentions.
(3) Not available.

In British Columbia, the strike which occurred during the summer was mainly responsible for a drop in that region of about 6 per cent in production. Exports from the West Coast to the United States and the United Kingdom were up while exports to other countries together with domestic sales were down. Operations of the B.C. shingle mills continued to be curtailed in 1952. East of the Rockies there was a slight drop in production which was accounted for mainly by a certain amount of slackness in the domestic and United States markets during the first half of the year; in the second half of the year both production and sales were higher than in the corresponding period of 1951.

In 1953, according to the survey of producers' intentions made late in 1952, sawmill operators in British Columbia expect their output to increase by 4 per cent and operators east of the Rockies expect their's to decrease by 1·7 per cent. The extent to which these expectations are realized will depend, of course, on the strength of the market. At the end of 1952, the Canadian and United States markets were strong, and it seemed likely that demand in these areas would be maintained or even increased in 1953. On the other hand, sales to the United Kingdom, which have been particularly important to West Coast producers, will probably show a significant decline.

Hardwood flooring output declined in 1952 due to a drop both in exports and domestic sales. The improved outlook for housing would seem to indicate some improvement in hardwood flooring sales in 1953.

Cement and Cement Products

The consumption of cement in Canada reached an all time peak in 1952, and while total supplies were not very far below requirements, shortages were experienced, particularly during the last half of the year. Cement was difficult to obtain on short notice in most sections of the country and scarcities were especially prevalent on the Prairies and in Central Canada.

Total supplies rose 10 per cent due partly to higher domestic production and partly to increased imports. Two new plants in the Maritime Provinces designed eventually to produce a total of 1·4 million barrels of cement per year were in production by early spring. Later in the year, two plant expansion projects, one in Alberta and one in British Columbia, designed to increase capacity by about 1·7 million barrels per year, were completed. Imports were about 30 per cent higher than in 1951.

The industry entered the construction season with larger stocks than in the previous year and, while requirements soon exceeded production, it was possible to draw on these stocks and few severe shortages were experienced until midsummer. By that time, however, stocks had been largely depleted and shortages began to appear even in spite of a sharply accelerated rate of importation. Moreover, during the last half of the year a number of factors combined to keep production lower than expected and to raise requirements. On the production side, new facilities in Ontario and the West were not ready for use as soon as had been expected. On the demand side, an unexpectedly sharp rise in residential construction activity and unusually favourable weather, coming at a time when requirements for defence, industrial and utilities construction were heavy, raised demand to a very high level.

The following table outlines the trend in supply and domestic disappearance of cement since 1946:

Year	Production	Imports	Domestic Supply	Stocks at Dec. 31	Domestic Disappearance
	(millions of barrels)				
1946	10·7	0·4	11·1	0·5	12·0
1947	12·2	1·2	13·4	0·7	13·2
1948	14·0	1·1	15·1	0·6	15·2
1949	16·1	2·3	18·4	0·8	18·2
1950	16·7	1·4	18·1	0·7	18·0
1951	17·1	2·3	19·4	0·9	19·2
1952(1)	18·4	3·0	21·4	0·8	21·5
1953	22·4(2)	(3)	(3)	(3)	(3)

(1) Preliminary.
(2) Producers' intentions.
(3) Not available.

During 1953, there will probably be some improvement in the availability of cement. While the physical volume of construction is expected to be somewhat larger than in 1952, the domestic output of cement is scheduled to rise by more than 20 per cent. This additional output will be achieved by the bringing into production of new plant in Ontario and by a full year's operation of the new capacity which was completed in 1952.

Cement products were in good supply all year although some producers complained of difficulties in obtaining adequate supplies of cement. Manufacturers of cement products expect to increase their output in 1953, and no shortages are likely to occur.

Clay Products

Most grades of building brick were in good supply in 1952. Sales during the first half of the year were substantially below the 1951 level, and production was cut back accordingly. During the latter part of the year sales rose sharply, permitting production to be stepped up and bringing inventories down to a fairly even balance. The following table outlines trends in domestic supply and disappearance of building brick since 1946:

Year	Domestic Production	Imports	Exports	Domestic Supply	Stocks at Dec. 31	Domestic Disappearance
	(millions of bricks)					
1946	316·7	1·1	6·1	311·7	18·9	311·8
1947	332·9	8·9	4·2	337·6	21·2	335·3
1948	361·6	8·3	4·9	365·0	21·2	365·0
1949	384·0	21·9	4·3	401·6	31·3	391·5
1950	420·5	16·6	2·8	434·3	23·9	441·7
1951	425·2	19·0	3·8	440·4	40·5	423·8
1952(1)	392·6	17·0	3·3	406·3	(3)	(3)
1953	418·0(2)	(3)	(3)	(3)	(3)	(3)

(1) Preliminary.
(2) Producers' intentions.
(3) Not available.

According to the survey of producers' intentions, brick manufacturers expect a small rise in their production during 1953. This expectation is based upon their assessment of probable demand, however, and greater output will be possible if requirements prove to be larger than anticipated.

Other clay products used in construction were also in good supply during 1952. Production of vitrified flue linings which are widely used in residential housing, was down; production of vitrified sewer pipe and of structural tile was up and imports were down. The following table shows production of selected clay products since 1946:

Year	Vitrified Flue Linings	Vitrified Sewer Pipe	Structural Tile
	(millions of ft.)	(millions of ft.)	(thousands of tons)
1946	1·0	3·2	140·8
1947	1·2	4·2	158·1
1948	1·3	5·3	165·7
1949	1·3	4·6	180·4
1950	1·4	5·1	193·8
1951	1·5	4·0	197·8
1952(1)	1·2	4·6	212·2
1953(2)	1·2	4·6	217·3

(1) Preliminary.
(2) Producers' intentions.

During 1953 manufacturers expect to produce about the same amount of vitrified flue linings and vitrified sewer pipe as in 1952; they expect their output of structural tile to rise a little. Supplies of these products should be adequate in 1953.

Mineral Wool Products

Mineral wool products used for insulating purposes were in good supply during 1952, the level of output having been determined by demand. The following table shows production and stocks of mineral wool products since 1946:

Year	Mineral Wool Batts (All Sizes)		Bulk Mineral Wool (Granulated and Loose)	
	Production	Stocks at Dec. 31	Production	Stocks at Dec. 31
	(million square feet)		(million cu. feet)	
1946	54·8	0·4	10·1	0·1
1947	82·3	0·6	9·8	0·1
1948	93·4	0·6	10·1	0·3
1949	137·8	2·0	14·7	0·5
1950	150·6	1·7	12·9	0·4
1951	149·7	3·2	11·5	0·4
1952(1)	158·4	1·7	11·0	0·5
1953	169·2(2)	(3)	10·9	(3)

(1) Preliminary.
(2) Producers' intentions.
(3) Not available.

Manufacturers of mineral wool products are anticipating a moderate rise in demand during 1953 and output will be scheduled to meet all requirements.

Gypsum Products

Gypsum products were in good supply during the first half of 1952, but were short in the second half. Demand during the first half was down from the previous year, and producers reduced output to a level consistent with current

sales and with the inventory storage capacity of the industry. There was an unexpectedly sharp rise in demand during the latter part of the year, and although the rate of output was raised, it proved impossible to meet all requirements without some delays. The following table outlines Canadian production and stocks of gypsum wallboard, gypsum lath and hardwall plaster since 1946:

Year	Gypsum Wallboard		Gypsum Lath		Hardwall Plaster	
	Production	Stocks at Dec. 31	Production	Stocks at Dec. 31	Production	Stocks at Dec. 31
	(million sq. ft.)		(million sq. ft.)		(thousands of tons)	
1946	203·4	1·8	75·0	0·7	97·3	0·6
1947	213·7	1·2	111·1	0·6	119·7	0·5
1948	237·7	1·6	153·0	0·5	137·1	0·9
1949	230·6	1·2	174·0	0·7	160·8	0·8
1950	230·7	2·6	214·7	2·1	164·3	0·9
1951	232·3	2·6	228·6	2·5	164·8	1·0
1952(1)	233·9	4·1	212·7	2·2	172·7	1·3
1953	245·8(2)	(3)	223·5(2)	(3)	184·8(2)	(3)

(1) Preliminary.
(2) Producers' intentions.
(3) Not available.

The demand for gypsum products is expected to rise in 1953, and deliveries will probably become extended before the peak of the construction season is over. While manufacturers intend to raise their production and to increase their storage capacity, it is unlikely that they will be able to build up sufficient stocks to meet all requirements without delays during the height of the construction season.

Heating Equipment

The demand for heating equipment was down considerably from 1951 due principally to the relatively low level of house building activity during the first half of the year. As a result, production of most items was cut back until the last quarter of the year. By that time demand had revived and stocks had been worked down to satisfactory levels, making it possible to step up production schedules again.

The following table outlines production and stocks of selected items of heating equipment in recent years.

Year	Production				Stocks at Dec. 31		
	Warm Air Furnaces and Heating Boilers	Electric Water Heaters	Hot Water Storage Tanks	Cast Iron Radiators (1)	Electric Water Heaters	Hot Water Storage Tanks	Cast Iron Radiators (1)
	(thousands of units)						
1946	60·9	76·6	138·4	8·0	0·8	0·1	0·4
1947	72·4	121·0	157·7	8·7	3·9	0·3	0·5
1948	82·4	146·7	190·0	8·6	12·1	0·2	0·6
1949	96·2	185·2	192·2	7·2	18·1	1·2	0·6
1950	120·9	228·1	194·2	7·3	18·3	2·8	0·3
1951	100·8	293·2	156·3	7·9	54·1	2·2	0·8
1952(2)	89·1	201·6	159·3	5·8	35·6	4·5	1·0
1953	103·5(3)	215·1(3)	172·7(3)	6·2(3)	(4)	(4)	(4)

(1) Millions of square feet.
(2) Preliminary.
(3) Producers' intentions.
(4) Not available.

The survey of producers' intentions indicates that manufacturers of heating equipment expect to do more business in 1953 than they did in 1952. Sufficient productive capacity exists, however, to meet all requirements that are likely to occur.

Sanitary Ware

Production of most items of sanitary ware was down in 1952 although it rose sharply towards the end of the year. The softening in demand had been evident in the autumn of 1951, after a decline in house building activity, and by the beginning of 1952 stocks had become excessively high. In the latter half of 1952 however, house building activity increased and demand for sanitary ware rose sharply; moreover stocks had by that time been reduced to more satisfactory levels and manufacturers were able to increase their rates of production.

The following table outlines production and stocks of bath tubs, sinks and wash basins since 1946:

Year	Production			Stocks at Dec. 31		
	Bath Tubs	Sinks	Wash Basins	Bath Tubs	Sinks	Wash Basins
	(thousands of units)					
1946	57·9	103·7	78·6	1·0	3·5	3·9
1947	81·1	120·7	90·7	1·5	4·8	6·8
1948	102·1	139·6	109·9	0·6	4·3	3·1
1949	132·5	192·0	140·8	1·2	13·9	6·8
1950	139·2	169·7	201·1	1·5	10·2	9·0
1951	120·8	117·7	195·7	13·2	24·4	39·8
1952(1)	103·3	130·9	125·6	10·5	23·2	23·6
1953	117·7(2)	158·8(2)	166·0(2)	(3)	(3)	(3)

(1) Preliminary.
(2) Producers' intentions.
(3) Not available.

The value of imports of sanitary ware since 1946 has been as follows:

Year	Iron or Steel Baths, Bath Tubs, Basins, Closets, Sinks, etc.	Baths, Bath Tubs, Basins etc. of other than Iron or Steel	Total
	(thousands of dollars)		
1946	494	741	1,235
1947	2,188	1,249	3,437
1948	314	2,650	2,964
1949	867	2,642	3,509
1950	1,111	2,582	3,693
1951	1,785	3,284	5,069
1952(1)	1,200	1,700	2,900

(1) Preliminary.

The survey of producers' intentions indicates that manufacturers of sanitary ware expect to increase their output substantially in 1953. With stocks reduced and with house building activity increased the market should be able to absorb a greater volume of output in 1953 than it was capable of in 1952, but no shortages are likely to occur.

Roofing Products

Asphalt roofing products were freely available in 1952 except for a few temporary shortages of asphalt shingles occasioned by a sharp rise in demand in the last half of the year. The following table shows the annual production since 1946:

Year	Asphalt Shingles	Smooth and Mineral Surfaced Rolls
	(Millions of squares)	
1946	2·0	3·0
1947	2·1	3·4
1948	2·0	2·5
1949	2·1	2·4
1950	2·4	2·4
1951	2·2	2·5
1952(1)	2·1	1·8
1953(2)	2·3	2·0

(1) Preliminary.
(2) Producers' intentions.

Manufacturers are planning a moderate rise in output in 1953 to meet an anticipated rise in demand, and no serious shortages should occur.

Paints, Varnishes and Lacquers

The output of paints, varnishes and lacquers rose moderately in 1952 and no shortages were experienced. Canadian manufacturers expect another moderate increase in production during 1953 and, with inventories now at satisfactory levels, no shortages are anticipated. The following table outlines Canadian production, imports and exports of paints, varnishes and lacquers since 1946:

Year	Production	Imports	Exports	Domestic Supply
	(millions of dollars)			
1946	53·0	1·6	3·0	52·6
1947	64·9	2·3	3·0	64·2
1948	75·8	0·9	1·1	75·6
1949	75·4	1·5	0·6	76·3
1950	84·1	1·9	0·4	85·6
1951	96·1	2·3	1·0	97·4
1952(1)	108·8	2·1	0·7	110·2
1953	115·0(2)	(3)	(3)	(3)

(1) Preliminary.
(2) Producers' intentions.
(3) Not available.

Rigid Insulation Boards

Rigid insulating boards were in good supply during 1952. Demand was easier during the first half of the year, but rose considerably in the second half. The following table outlines production, imports and exports of rigid insulating boards since 1946:

Year	Production	Imports	Exports	Domestic Supply
	(Millions of square feet)			
1946	161·8	11·7	22·6	150·9
1947	203·1	24·9	31·9	196·1
1948	220·7	11·4	25·1	207·0
1949	222·7	59·6	19·0	263·3
1950	227·3	21·1	11·1	237·3
1951	289·4	13·1	34·4	268·1
1952(1)	243·1	17·0	33·0	227·1
1953	250·6(2)	(3)	(3)	(3)

(1) Preliminary.
(2) Producers' intentions.
(3) Not available.

Manufacturers are planning an increase in output for 1953 to meet an anticipated rise in demand. These plans can be altered to suit conditions and no shortages are expected.

Builders' Hardware

Production of builders' hardware was down in 1952 due to a drop in sales during the first half of the year. Sales were up sharply, however, during the latter part of the year. No serious shortages were encountered even though part of the industry was in the process of getting a new type of lock into production. The following table illustrates trends in Canadian production, imports and exports of builders' hardware:

Year	Production	Imports	Exports	Domestic Supply
	(millions of dollars)			
1946	5·6	0·7	0·9	5·4
1947	5·9	1·0	1·3	5·6
1948	9·8	1·1	0·6	10·3
1949	10·0	1·2	0·3	10·9
1950	10·7	1·5	0·3	11·9
1951	11·0	1·9	0·5	12·4
1952(1)	10·1	1·6	0·6	11·2
1953	10·5(2)	(3)	(3)	(3)

(1) Preliminary.
(2) Producers' intentions.
(3) Not available.

During 1953, manufacturers expect demand to be slightly higher than in 1952, and are planning to raise output accordingly. No serious shortages are expected although substitutions may be necessary from time to time.

Section IV

REFERENCE TABLES

TABLE 1.—PRODUCTION AND PRODUCTION INTENTIONS FOR SELECTED BUILDING MATERIALS IN CANADA, 1952 AND 1953

Material	Unit	Production 1952(1)	Production Intentions 1953	Percentage Change 1952-1953
IRON AND STEEL PRODUCTS—				
Structural Steel and Piling	Thousand tons	180·6	(2)	—
Concrete Reinforcing bars	Thousand tons	158·3	(2)	—
Wire nails and spikes	Thousand tons	81·7	83·1	+ 1·7
PLUMBING SUPPLIES—				
Cast iron soil pipe and fittings	Thousand tons	43·4	48·1	+10·8
Cast iron pressure pipe and fittings	Thousand tons	85·3	101·9	+19·4
Steel pipe and fittings	Thousand tons	156·9	156·9	0·0
SANITARY WARE—				
Bath tubs	Thousand tubs	103·3	117·7	+14·0
Sinks	Thousand sinks	130·9	158·8	+21·3
Wash basins	Thousand basins	125·6	166·0	+32·1
HEATING EQUIPMENT—				
Furnaces—Warm air and heating boilers	Thousand furnaces	89·1	103·5	+16·2
Electric water heaters	Thousand heaters	201·5	215·1	+ 6·7
Hot water storage tanks (range boilers)	Thousand tanks	159·3	172·7	+ 8·4
Cast iron radiators	Million sq. ft	5·8	6·2	+ 7·1
SAWN LUMBER	Billion b.f.m	6·3	6·5	+ 2·0
CEMENT AND CEMENT PRODUCTS—				
Cement	Million barrels	18·4	22·4	+21·7
Concrete brick and building blocks	Million pieces	143·9	153·4	+ 6·6
Cement pipe and tile	Thousand tons	276·0	269·4	− 2·4
CLAY PRODUCTS—				
Building brick (including sand-lime brick)	Million bricks	392·6	418·0	+ 6·5
Vitrified flue linings	Million lin. ft	1·2	1·2	0·0
Vitrified sewer pipe	Million lin. ft	4·6	4·6	0·0
Structural tile	Thousand tons	212·2	217·3	+ 2·4
MINERAL WOOL PRODUCTS—				
Mineral wool batts (all sizes)	Million sq. ft	158·4	169·2	+ 6·8
Bulk mineral wool (granulated and loose)	Million cu. ft	11·0	10·9	− 0·9
GYPSUM PRODUCTS—				
Gypsum wallboard	Million sq. ft	233·9	245·8	+ 5·1
Gypsum lath	Million sq. ft	212·7	223·5	+ 5·1
Gypsum hardwall plaster	Thousand tons	172·7	184·8	+ 7·0
ROOFING PRODUCTS—				
Asphalt shingles (all weights)	Millions squares	2·1	2·3	+ 9·5
Smooth and mineral surfaced rolls	Millions squares	1·8	2·0	+ 1·1
MISCELLANEOUS PRODUCTS—				
Paints, varnishes and lacquers	Million dollars	108·8	115·0	+ 5·7
Rigid insulating boards	Million sq. ft	243·1	250·6	+ 3·1
Builders hardware	Million dollars	10·1	10·5	+ 3·5
Non-metallic sheathed cable	Million lin. ft	91·2	94·5	+ 3·6

(1) Preliminary.
(2) Not available.

TABLE 2.—HISTORICAL PRODUCTION OF SELECTED BUILDING MATERIALS IN CANADA, 1946–1952

Material	Unit	1946	1947	1948	1949	1950	1951	1952(1)
IRON AND STEEL PRODUCTS—								
Structural steel and piling	M. tons	115·6	161·2	172·8	180·3	158·0	215·2	180·6
Concrete reinforcing bars	M. tons	56·4	79·2	72·0	87·4	91·0	148·3	158·3
Wire nails and spikes	M. tons	58·9	77·4	86·8	88·5	86·2	90·7	81·7
PLUMBING SUPPLIES—								
Cast iron soil pipe and fittings	M. tons	24·5	32·5	45·7	44·3	54·0	53·0	43·4
Cast iron pressure pipe and fittings	M. tons	65·2	77·7	93·0	91·5	80·8	115·1	85·3
Steel pipe and fittings	M. tons	115·7	118·0	132·0	185·0	164·3	186·9	156·9
SANITARY WARE—								
Bath tubs	M. tubs	57·9	81·1	102·1	132·5	139·2	120·8	103·3
Sinks	M. sinks	103·7	120·7	139·6	192·0	169·7	117·7	130·9
Wash basins	M. wash basins	78·6	90·7	109·9	140·8	201·1	195·7	125·6
HEATING EQUIPMENT—								
Furnaces—warm air and heating boilers	M. furnaces	60·9	72·4	82·4	96·2	120·9	100·8	89·1
Electric water heaters	M. heaters	76·6	121·0	146·7	185·2	228·4	258·2	201·6
Hot water storage tanks (range boilers)	M. tanks	138·4	157·7	190·0	192·2	194·2	156·3	159·3
Cast iron radiators	Mill. sq. ft.	8·0	8·7	8·6	7·2	7·3	7·3	5·8
SAWN LUMBER	Bill. b.f.m.	5·1	5·9	5·9	5·9	6·6	6·5	6·3
CEMENT AND CEMENT PRODUCTS—								
Cement	Mill. barrels	10·7	12·2	14·0	16·1	16·7	17·1	18·4
Concrete brick and building blocks	Mill. pieces	49·4	63·2	82·6	106·4	138·5	136·5	143·9
Cement pipe and tile	M. tons	94·8	134·7	159·3	218·9	233·2	256·8	276·0
CLAY PRODUCTS—								
Building brick (inc. Sand-Lime Brick)	Mill. bricks	316·7	332·9	361·6	384·0	420·5	425·2	392·6
Vitrified flue linings	Mill. lin. ft.	1·0	1·2	1·3	1·3	1·4	1·5	1·2
Vitrified sewer pipe	Mill. lin. ft.	3·2	4·2	5·3	4·6	5·1	4·0	4·6
Structural tile	M. tons	140·8	158·1	165·7	180·4	193·8	197·8	212·2
MINERAL WOOL PRODUCTS—								
Mineral wool batts (all sizes)	Mill. sq. ft.	54·8	82·3	93·4	137·8	150·6	149·7	158·4
Bulk mineral wool (gran. and loose)	Mill. cu. ft.	10·1	9·8	10·1	14·7	12·9	11·5	11·0
GYPSUM PRODUCTS—								
Gypsum wallboard	Mill. sq. ft.	203·4	213·7	237·7	230·6	230·7	232·3	233·9
Gypsum lath	Mill. sq. ft.	75·0	111·1	153·0	174·0	214·7	228·6	212·7
Gypsum hardwood plaster	M. tons	97·3	119·7	137·1	160·8	164·3	164·8	172·7
ROOFING PRODUCTS—								
Asphalt shingles (all weights)	Mill. squares	2·0	2·1	2·0	2·1	2·4	2·2	2·1
Smooth and mineral surfaced rolls	Mill. squares	3·0	3·4	2·5	2·4	2·4	2·5	1·8
MISCELLANEOUS PRODUCTS—								
Paints, varnishes and lacquers	Mill. dollars	53·0	64·9	75·8	75·4	84·1	96·1	108·8
Rigid insulating boards	Mill. sq. ft.	161·8	203·1	220·7	222·7	227·3	289·4	243·1
Builders hardware	Mill. dollars	5·6	5·9	9·8	10·0	10·7	11·0	10·1
Non-metallic sheathed cable	Mill. lin. ft.	45·4	67·0	81·1	87·3	109·6	93·4	91·2

(1) Preliminary.

TABLE 3.—STOCKS OF SELECTED BUILDING MATERIALS HELD BY MANUFACTURERS, DECEMBER, 1946–1952

Material	Unit	Stocks on Hand at December 31						
		1946	1947	1948	1949	1950	1951	1952[1]
PLUMBING SUPPLIES—								
Cast iron soil pipe and fittings	M. tons	1·3	1·6	2·9	4·9	4·6	4·8	4·2
Cast iron pressure pipe and fittings	M. tons	[2]	2·3	4·7	8·3	6·7	9·2	13·5
Steel pipe and fittings	M. tons	17·2	6·7	8·9	17·6	29·5	18·5	7·5
SANITARY WARE—								
Bath tubs	M. tubs	1·0	1·5	0·6	1·2	1·5	13·2	10·5
Sinks	M. sinks	3·5	4·8	4·3	13·9	10·2	24·4	23·2
Wash basins	M. basins	3·9	6·8	3·1	6·8	9·0	39·8	23·6
HEATING EQUIPMENT—								
Electric water heaters	M. heaters	0·8	3·9	12·1	18·1	18·3	54·1	35·6
Hot water storage tanks (range boilers)	M. tanks	0·1	0·3	0·2	1·2	2·8	2·2	4·5
Cast iron radiators	Mill. sq, ft.	0·4	0·5	0·6	0·6	0·3	0·8	1·0
SAWN LUMBER—	Bill. b.f.m	0·5	0·5	0·7	0·7	0·7	0·8	0·8
CEMENT AND CEMENT PRODUCTS—								
Cement	Mill. barrels	0·5	0·7	0·6	0·8	0·7	0·9	0·8
Concrete brick and building blocks	Mill. pieces	1·2	2·2	2·7	6·2	7·4	13·0	10·9
Cement pipe and tile	M. tons	12·2	10·4	12·9	31·7	34·3	40·2	41·4
CLAY PRODUCTS—								
Building brick (including sand-lime brick)	Mill. bricks	18·9	21·2	21·2	31·3	23·9	40·5	[2]
Vitrified flue linings	M. lin. ft	23·8	26·2	19·0	35·9	20·6	157·3	120·8
Vitrified sewer pipe	M. lin. ft	80·7	45·5	85·9	114·0	112·0	186·0	483·5
Structural tile	M. tons	8·5	7·6	9·1	14·4	20·9	18·8	[2]
MINERAL WOOL PRODUCTS—								
Mineral wool batts (all sizes)	Mill. sq. ft	0·4	0·6	0·6	2·0	1·7	3·2	1·7
Bulk mineral, wool (granulated and loose)	Mill. cu. ft	0·1	0·1	0·3	0·5	0·4	0·4	0·5
GYPSUM PRODUCTS—								
Gypsum wallboard	Mill. sq. ft	1·8	1·2	1·6	1·2	2·6	2·6	4·1
Gypsum lath	Mill. sq. ft	0·7	0·6	0·5	0·7	2·1	2·5	2·2
Gypsum hardwall plaster	M. tons	0·6	0·5	0·9	0·8	0·9	1·0	1·3
OTHER PRODUCTS—								
Non-metallic Sheathed Cable	Mill. lin. ft	1·0	0·8	0·8	1·4	1·7	5·0	2·5

[1] Preliminary.
[2] Not available.

TABLE 4.—PRODUCTION INTENTIONS AND REALIZATION FOR SELECTED BUILDING MATERIALS IN CANADA, 1952

Material	Unit	Production Intentions	Realization[1]	Percentage Realization to Intentions
WIRE NAILS AND SPIKES	Thousand tons	92·5	81·7	−11·6
PLUMBING SUPPLIES—				
Cast iron soil pipe and fittings	Thousand tons	53·5	43·4	−18·9
Cast iron pressure pipe and fittings	Thousand tons	116·2	85·3	−26·6
Steel pipe and fittings	Thousand tons	180·2	156·9	−12·9
SANITARY WARE—				
Bath tubs	Thousand tubs	132·3	103·3	−21·9
Sinks	Thousand sinks	128·5	130·9	+ 1·9
Wash basins	Thousand basins	204·1	125·6	−38·5
HEATING EQUIPMENT—				
Furnaces—Warm air and heating boilers	Thousand furnaces	108·6	89·1	−18·0
Electric Water heaters	Thousand heaters	289·1	201·6	−30·4
Hot water storage tanks (range boilers)	Thousand tanks	181·8	159·3	−12·4
Cast iron radiators	Million sq. ft.	8·5	5·8	−31·8
SAWN LUMBER	Billion b. f. m.	6·4	6·3	— 1·6
CEMENT AND CEMENT PRODUCTS—				
Cement	Million barrels	19·2	18·4	− 4·2
Concrete brick and building blocks	Million pieces	154·7	143·9	− 7·0
Cement pipe and tile	Thousand tons	319·2	276·0	−13·6
CLAY PRODUCTS—				
Building brick (including sand-lime brick)	Million bricks	415·5	392·6	− 5·5
Vitrified Flue Linings	Million lin. ft.	1·5	1·2	−20·0
Vitrified sewer pipe	Million lin. ft.	4·2	4·6	+ 9·5
Structural tile	Thousand tons	191·9	212·2	+10·6
MINERAL WOOL PRODUCTS—				
Mineral wool batts (all sizes)	Million sq. ft.	155·7	158·4	+ 1·7
Bulk mineral wool (Granulated and Loose)	Million cu. ft.	12·1	11·0	− 9·1
GYPSUM PRODUCTS—				
Gypsum wallboard	Million sq. ft.	265·0	233·9	−11·7
Gypsum lath	Million sq. ft.	260·0	212·7	−18·2
Gypsum hardwall plaster	Thousand tons	200·3	172·7	−13·7
ROOFING PRODUCTS—				
Asphalt shingles (all weights)	Million squares	2·3	2·1	− 8·7
Smooth and mineral surfaced rolls	Million squares	2·5	1·8	−28·0
MISCELLANEOUS PRODUCTS—				
Paints, varnishes and lacquers	Million dollars	96·8	108·8	+12·4
Builders' hardware	Million dollars	11·4	10·1	−11·4
Non-metallic sheathed cable	Million lin. ft.	98·9	91·2	− 7·8
Rigid insulating boards	Million sq. ft.	307·6	243·1	−20·9

[1] Preliminary.

Section V

SOURCES AND EXPLANATORY NOTES

This report is concerned mainly with an over all appraisal of the Canadian production and supply position of 32 materials used in construction, although regional variations are referred to in some cases. The statistics used are based on data collected by the Dominion Bureau of Statistics except where otherwise noted. All figures for 1952 are preliminary as noted. Figures for stocks are as reported by producers only and do not include inventories at the wholesale or retail levels.

Production intentions for 1953 are based on a survey of the anticipated output of nearly all of the companies producing the materials covered in the report. The questionnaires were distributed by the Dominion Bureau of Statistics from which estimates for 1953 were prepared. Thus, the production intentions as published herein represent the estimates which the producers made at the end of 1952. A few of these estimates, most notably cement, are based upon the assumption that the industry will be working at full capacity. Most of the estimates, however, are clearly based upon the producers' assessment of probable demand in 1953. The accuracy of these forecasts has varied over the years. The foreacasts made for the years 1947 to 1951 inclusive were based mainly upon expected capacity to produce, and usually proved to have been conservative. On the other hand, the producers' intentions as contained in last year's report proved in most cases to have been too optimistic. A comparison of production intentions and actual production for a number of building materials is shown in Table 4, entitled "Production Intentions and Realization for Selected Building Materials in Canada, 1952".

Sources and explanatory notes for the materials covered in this report are given below.

Steel Pipe and Fittings. This group consists of butt-weld and lap-weld steel pipe, steel pipe fittings and seamless steel tubing. The latter type has been added to this classification because of its increased use in building as a substitute for butt-weld pipe.

Sinks comprise flat and roll rim sinks, sink and drain board combinations and sink and tray combinations.

Furnaces. This classification consists of warm air furnaces and cast iron sectional hot water or steam domestic heating boilers.

Electric Water Heaters. This group comprises electric water heaters of the circulating, immersion, wrap-around and storage-tank types.

Hot Water Storage Tanks. This classification consists of galvanized, copper, Everdur and Monel storage tanks and range boilers.

Cement refers to the Portland type only. The unit of measure used is the barrel of 350 pounds.

Concrete Brick and Building Blocks comprise concrete brick, concrete blocks (cinder, gravel and other aggregates), and concrete chimney blocks. The figures shown are estimated from data supplied by the majority of producing firms in the field.

Cement Pipe and Tile includes cement drain pipe, sewer pipe, water pipe and culvert tile.

Building Brick comprises face and common clay brick and sand-lime brick. All figures used are estimates based on data supplied by the majority of producers. Imports have been converted from tons to thousands of bricks to assure comparability with other data.

Mineral Wool Batts. Figures are for 1-inch, 2-inch, 3-inch and 4-inch batts. Imports which are classified as "mineral wool, n.o.p." are reported in pounds and these figures have been converted to square feet, 3-inch basis, on the assumption these imports were batt wool.

Bulk Mineral Wool consists of granulated mineral wool and bulk or loose mineral wool.

Asphalt Shingles comprises asphalt shingles of all weights.

Non-Metallic Sheathed Cable. Included in this classification are the 12/2, 14/2 and Number 4 R.C.D.B. types of non-metallic sheathed cables.

Rigid Insulating Boards. This group consists of panel boards, plaster-base boards, roof boards and other building boards made from pulp or fibre. Imports and Exports are classified as "building and insulating board" and are reported in pounds; these figures have been converted to square feet, $\frac{1}{2}$-inch basis, to assure comparability with production data.